

AMERICAN BEE JOURNAL

46th Year

CHICAGO, ILL., NOV. 22, 1906

No. 47



APIARY OF T. F. BINGHAM, OF FARWELL, MICH.



APIARY OF J. H. REDMOND, OF BLUE ISLAND, ILL.
(See page 962)

American Bee Journal

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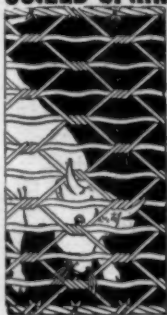
the NATIONAL EXPONENT of the PROHIBITION
MOVEMENT. 16 pages, weekly; illustrated.
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Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on 10 days test trial.

This engine is no experiment, but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

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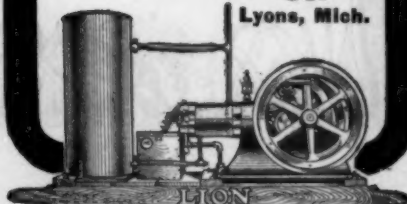
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Town _____
State _____
Street No. or P. O. Box _____
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When writing, please state definitely for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. This information is very important to us. Please remember we send the engine, not the engine agent.

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American Bee Journal

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Too late to deliver them? Yes! But not too late to begin to get ready for next spring! I give personal attention to correspondence. My queens are guaranteed. Write at once to

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Steam with the
EXCELSIOR INCUBATOR
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Hatch every fertile egg. Lowest
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Effective November 1, 1906, and until otherwise advised, the local passenger fares between all stations on the Nickel Plate Road are reduced from former rates charged. The reduced fares from Chicago to principal points are as follows:

Chicago to Buffalo, first class, \$10.50;
Erie, \$8.55; Cleveland, \$6.75; Bellevue, \$6.35; Postoria, \$5.70; Findlay, \$5.50;
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Second-class, Chicago to Buffalo, \$9.50. Corresponding reductions apply to all other intermediate points, including points on connecting lines, as also to many points beyond Buffalo reached by our through car lines.

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	Italians Before July 1st			After July 1st			CARNIOLANS			CAUCASIANS		
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Untested	\$.75	\$4.00	\$7.50	\$.60	\$3.25	\$6.00	\$.85	\$4.50	\$8.00	\$.95	\$5.00	8.50
Select Untested	1.00	5.00	9.00	.75	4.25	8.00	1.10	5.50	9.50	1.20	6.00	10.00
Tested	1.50	8.00	15.00	1.25	6.50	12.00	1.60	8.50	15.50	1.70	9.00	16.00
Select Tested ..	2.00	10.00	18.00	1.50	8.00	15.00	2.10	10.50	18.50	2.20	11.00	19.00

Straight 5-band Golden Breeders.....	\$10.00	1-frame Nucleus (no queen)	\$1.50
Select Golden Breeders	3.00	2-frame " "	2.00
" 3-band "	3.00	3-frame " "	2.50
" Carniolan "	3.10	4-frame " "	3.00
" Caucasian "	3.25	1 full colony without queen in 8-frame dovetailed hive.....	6.00

Bees by the pound in light shipping-boxes, \$1.00 per pound.

Select the Queen wanted, and add the price to the above prices.

Discounts on large orders. Contracts with dealers a specialty. No bee-disease has ever been in this section.

13Ddt

JOHN M. DAVIS, Spring Hill, Tenn.

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absolutely free, postage prepaid. You should not overlook this opportunity to secure one of the foremost farm monthlies in the country, together with this valuable book at the price of the paper alone.

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A READY CALCULATOR, BUSINESS ARITHMETIC AND REFERENCE BOOK COMBINED.

This is unquestionably the most complete and convenient work on Figures for PRACTICAL USE ever published. It contains nearly all the Short Cuts known; hundreds of Simple Rules and Original Methods for "Easy and Rapid Calculation," and Millions of Accurate Answers to Business Examples and to Practical Problems.

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Everyone who prefers to take the Simplest the Shortest and the Easiest way for doing his work should possess a copy of this useful and convenient Pocket Manual. It will enable everybody to become Proficient and Quick in Figures; and to many a young person it may prove to be a stepping stone to a successful business career.

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The number of bushels and pounds in a load of Wheat, Corn, Rye, Oats, or Barley, and the correct amount for same at any price per bushel.

The exact amount for a lot of hogs or cattle, from 1 lb. to a carload, at any price per cwt.

The correct amount for a load of Hay, Straw, Coal or Coke, from 25 cents to \$20.00 per ton.

The correct amount for articles sold by the Bushel, Pound, Yard or Dozen from 1/4c to \$1.

The exact wages for any time, at various rates per month, per week and per day.

The equivalent of wheat in flour, when exchanging same, from 25 to 40 lbs. to the bushel.

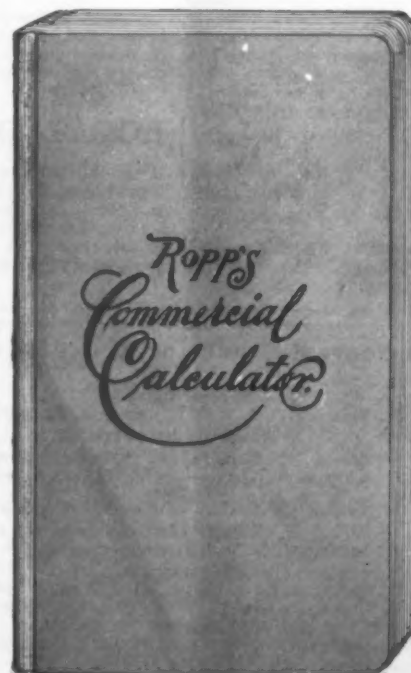
The only correct Rule and Table for estimating the exact contents of logs of all sizes.

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Size 6 1/4 x 3 3/4 inches.

Handsomely and attractively bound in cloth, with round corners and just the right size to fit the pocket. A copy of this useful and practical work should be in the hands of every farmer, mechanic, or business man.

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COUPON

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Gentlemen:—Enclosed find 50 cents for which send the EPITOMIST for three years from date. Send me as a premium postpaid a copy of ROPP'S COMMERCIAL CALCULATOR.

Name
Address

American Bee Journal

ONE MORE WEEK

You must hurry if you secure our November Discount
of 5 percent.

Perhaps the best argument we can advance for your taking advantage of our early-order discounts is that an ever-increasing number of bee-keepers are doing so. They know that it pays. The discount is very large interest on their money. There are no disastrous delays in receiving goods. Plenty of time to put them up. The extreme satisfaction of being ready when the critical moment comes, and consequently getting all the honey to be obtained. It's just a question of a little forethought to reap all these advantages.

Orders may be sent to any Branch House or Dealer.

WELL-KNOWN DEALERS

The dealers, whose names follow, are well known to bee-keepers. They have been, for the most part, long established in the bee-supply trade, and have a knowledge of the business most valuable indeed to the bee-keeping fraternity. Their advice may be had on any question of Supplies, etc., for the asking.

THE LARGE STOCKS

Nowhere else is it possible to find such well-assorted stocks of goods for bee-keepers as are carried by dealers in Root's goods. No matter whether you require a little 5-cent article or a car-load of goods, these dealers can serve you promptly. Stocks are frequently carried amounting to \$5000 and upwards.

SHIPPING POINTS

You will observe that these dealers have excellent shipping facilities—guaranteeing you quick delivery and low freight.

PRICES, DISCOUNTS

The prices, terms, discounts, etc., are identical with the home office at Medina, with rare exceptions. Full particulars may be had before ordering, if desired, by writing the dealer nearest you. You can, however, use our Medina catalog and terms, and, if any variation, your dealer will advise you, if requested, before shipping.

OTHER DEALERS

Besides the following list, there are many others who handle Root's goods. The following is by no means complete, for hundreds of dealers come to us for many of the goods of which we are the exclusive manufacturers. Insist on getting Root's goods.

LOCAL DEALERS

In addition to the following list who carry large stocks, and furnish at both Wholesale and Retail, we have in every State a large number of local dealers who handle our goods exclusively. As there are over 500 of these dealers, space will not permit giving their names at this time; but information will be given by us, on request, to any bee-keeper regarding the dealer nearest him handling Root's goods.

Write Nearest Branch or Agent for Catalog.

Alabama
* Wetumpka.....J. M. Jenkins
Canada
Toronto.....E. Grainger & Co.
California
* Fresno.....Madary Planing Mill
* Los Angeles.....California National
Honey-Producers' Association
Colorado
Denver.....The L. A. Watkins Mfg. Co.
Fruita.....Fruita Fruit and Produce Ass'n
District of Columbia
Washington.....The A. I. Root Co.
Georgia
Savannah.....Howkins & Rush
124 Liberty St.
Illinois
Chicago.....The A. I. Root Co.
144 East Erie Street.
Indiana
Indianapolis.....Walter S. Powder
Evansville.....Vickery Bros.
Iowa
Des Moines.....Joseph Nysewander
Kansas
Augusta.....Carl F. Buck

Mississippi
Brazelia.....George A. Hummer
Massachusetts
Boston.....H. H. Jepson, 182 Friend Street
Lyonsville.....W. W. Cary & Son
Maine
Mechanic Falls.....The A. I. Root Co.
Maryland
Baltimore.....Rawlins Implement Co.
Michigan
Bell Branch.....M. H. Hunt & Son
Fremont.....George E. Hilton
Minnesota
St. Paul.....The A. I. Root Co.
1024 Mississippi Street.
Missouri
High Hill.....Jno. Nebel & Son Supply Co.
Springfield.....Springfield Seed Co.
St. Louis.....Blanke & Hank
New Mexico
Carlsbad.....Edward Scoggins
New York
Syracuse.....The A. I. Root Co.
New York City.....The A. I. Root Co.
44 Vesey Street.

Ohio
Columbus Grove.....McAdams Seed Co.
Toledo.....Griggs Bros., 521 Monroe St.
Zanesville.....E. W. Pierce
Cincinnati.....C. H. W. Weber
2146 Central Avenue
Oregon
Portland.....Portland Seed Co.
Pennsylvania
Du Bois.....Prothero & Arnold
Philadelphia.....The A. I. Root Co.
10 Vine Street
Williamsport.....E. E. Pressler
633 Lycoming Street
Texas
Dallas.....Texas Seed and Floral Co.
San Antonio.....Udo Toepperwein
Uvalde.....D. M. Edwards
Utah
Ogden.....The Superior Honey Co.
Virginia
Spottswood.....W. E. Tribbett

* These dealers buy our goods in carload lots but supplement them with local-made goods.

THE A. I. ROOT CO., Medina, Ohio



(Entered at the Post-Office at Chicago as Second-Class Mail-Matter.)

Published Weekly at \$1.00 a Year, by George W. York & Co., 334 Dearborn Street.

GEORGE W. YORK, Editor

CHICAGO, ILL., NOVEMBER 22, 1906

Vol. XLVI—No. 47



The National at San Antonio

The convention for 1906 is over. It was not quite as large in attendance as was the Chicago meeting of the National last year, but that was to be expected, in view of the place where it was held, and the fact that 1906 has been a very poor honey-year quite generally, and particularly in Texas. In the absence of Secretary Hutchinson, the Editor of the American Bee Journal was elected secretary *pro tem*. There were present about 50 bee-keepers from outside of that State. One came from Utah, one from California, and 3 from New York. In all 14 States were represented. And 9 of them came in the special car that started from Chicago.

It was a good meeting. It was harmonious throughout. It wouldn't have been a comfortable place for any trouble-makers. It must be that such remained at home this time, as none appeared.

A number of good moves for the benefit of bee-keepers were launched. Perhaps the most important was the beginning of an effort to get lower freight-rates on honey, bees and beeswax. If success is won in this alone, it will justify the existence of the National, and will be a benefit to every bee-keeper who has any honey, bees or beeswax to ship. The committee appointed to look after this matter are, General Manager N. E. France, of Wisconsin, Fred W. Muth, of Ohio, and R. A. Holekamp, of Missouri. It will not be the fault of these men if lower freight-rates are not secured, as they will make every effort possible.

The San Antonio convention was almost wholly a question-box convention. There were only 3 papers read, and they were fine ones, too.

Just as rapidly as possible the pamphlet re-

port of the San Antonio convention will be gotten up. It is mailed only to members. If you are not a member now, and want the report in pamphlet form, send \$1.00 for a year's dues to the General Manager, N. E. France, Platteville, Wis.

The National Election of Officers

It is being held this month. There will be a President, a Vice-President, a Secretary, a Treasurer and General Manager, and three Directors, to be elected.

Mr. C. P. Dadant, who is president now, and also W. Z. Hutchinson, who is secretary at present, positively refuse a re-election, so it will be necessary to vote for others for those two positions.

It seems there are a few members who do not think that bee-supply dealers and manufacturers should hold offices in the National. Well, the way to prevent that is for the majority not to vote for such. But just *why* those mentioned, if bee-keepers, should not hold office, is not very clear. We have yet to see a good reason advanced for such prohibition from office. For about 15 years we have been in a good place to know pretty well just what has been going on in the National, and we have yet to see a single instance where an officer who was a bee-supply dealer or manufacturer failed to do his duty, or was in any way a detriment to the National. And, above all, we don't think they should be criticised when in office, for they would not have any offices if it were not that they were honestly elected by a majority of the ballots cast. If we are any judge, all the bee-supply dealers and manufacturers who have held office, or are now in office, are fully equal for such positions, to those who are "kicking" against them.

What is needed is for all, who want to see bee-keeping put on a more substantial business basis, to turn in and push for a large membership in the National. The few, especially in the East, who are trying to overthrow the National, are not greatly interested in honey-production anyway, so far as we can learn. At any rate, bee-keeping with them is a side-line, so their opposition should hardly be considered. But, on the contrary, the good and faithful work of those now in the management of the National should be encouraged, and every bee-keeper worthy the name should do everything possible to make our great National organization greater each succeeding year. The bee-papers, with but a single exception, we believe, are doing their share toward helping to build up the National and make it a power in the land.

Extra Combs of Honey

This Journal has been insistent that extra combs of honey should be secured, for the sake of ministering to the future needs of the bees. As a general rule, the smaller the hives used the larger should be the stock of such combs. They can, of course, not be secured at this time of year when all gathering has ceased. Too late for that. It is not too late, however, to say a word as to the disposal of some of these combs. It is entirely in the range of possibility that some, especially of those using small hives, found every comb in each hive entirely filled, somewhere about the first of September, and settled down that nothing further was needed for the winter, and that the extra combs were to be kept for spring use. But although the combs were entirely filled, there was much brood present, and later examination, after the cells were emptied of all brood, would show one or several combs with only a little honey in them.

In some cases there may be a possible danger of starvation before the winter is over. It is a bad thing to disturb colonies so late as now; it is a worse thing to let them starve. Then, too, it is perhaps better to disturb them now than to disturb them early in the spring; so if a colony is not heavy enough so that you feel sure it will be all right until plenty of flying days come, better give it one or more of the extra combs of

American Bee Journal

honey now. Then make up your mind you will see to the matter earlier another year.

Remember that the best place to keep extra combs of honey is right in the hive so long as there is room for them there.

The Bee-Inspectors' Meeting

This, we think, was a surprise to the majority of those who attended it. It was wonderfully interesting. It was held on Monday following the National meeting. There were some 50 inspectors and other bee-keepers present. Dr. Phillips, Acting in Charge of Apiculture, at Washington, D. C., presided. Dr. G. F. White, bacteriologist of the Bureau of Animal Industry, in Washington, D. C.,

and Prof. John M. Rankin, representing the apicultural work of the Government at Chico, Calif., were also present. All three of the Government officials took a large and leading part in the meeting.

It was the second gathering of bee-disease inspectors held in this country. The first met in Syracuse, N. Y., where the American Bee-Inspector's Association was organized, in 1903, with N. E. France as president, N. L. Stevens as vice-president, W. Z. Hutchinson as secretary, and W. D. Wright as treasurer.

A committee to prepare a constitution was selected at San Antonio.

A fuller report of this very important meeting of inspectors will be given in these columns later.

ing is not much with me, for I have so many things to look after that it is neglected. Yet I probably have the most original apiary in the United States. I often wonder how the lady bee-keepers get along with the massive hives generally used. Perhaps the hive I use is not best for a 4-visits-a-year apiary, but I get along easily with it, and my experiments amuse me. I have made a few of them this year in the non-swarming-fad line, that can not be judged until another winter and summer have gone.

This is my first run for extracted honey since I located here. It came as a result of a late, cool spring. It has paid well enough, and has been little trouble. I have gathered a few facts not in the books—of no great consequence, but interesting to me.

T. F. BINGHAM.

PUSSY WILLOW

By the brook that skirts the pasture
Pussy willows scent the breeze;
Long before the sleepy linden
Wakes to tempt the honey-bees.
April woods are bare and brown
But the willows, pussy willows,
Shake their dainty, fluffy pillows,
Soft as beds of eider-down.

All the wealth of love and service
Are not lavished on the great,
In the scale of the Eternal
They are least who lag and wait.
Bare and brown the giant trees,
But the willows, pussy willows,
Early shake their golden pillows,
Serving hungry honey-bees.

—EUGENE SECON,
in *Successful Farming*.



S. P. C. A. and Bees in Show-Window.—The following item appears in a Chicago daily:

PITTSBURG, Oct. 7.—Because confinement of bees in a show-window was held cruel, as the bees had no chance to take exercise, G. K. Stevenson, a grocer, will send them out to the country for some fresh air to-morrow. An Agent of the Society for Prevention of Cruelty to Animals saw the grocer's display, and warned him to give the bees a change if he would avoid prosecution.

There is such a thing as being over zealous in a good cause. The next thing the S. P. C. A. will be insisting that instead of allowing the queen to be imprisoned in the hive year in and year out, she shall be led out for a daily promenade whenever the weather is fine. If a temporary sojourn in a window for a few days is so bad for bees, how about keeping a canary from flying all its lifetime?

The Apiary of J. H. Redmond appears in one of the pictures on the first page this week. Mr. R. wrote us as follows concerning it, Oct. 19:

EDITOR AMERICAN BEE JOURNAL:—I have been interested in bees from a small boy. I have seen more men go into the bee-business and again "lose out," or what I call "let them die out for the want of proper attention," than any other man in the State. It takes only about 5 years to see when a man goes into the bee-business what he will do. Some who have failed claim they did not have time, but this is no excuse, for a man who is a natural bee-keeper has plenty of time to look after bees, and is glad to do it. I know men who keep bees that do not go near them for months—they are not bee-keepers; they only let bees keep themselves.

I am not at home a quarter of the time, yet I have plenty of time to look after my bees, and a man who does not do so, would do the bees a great favor to give them to some one who will care for them.

I have but 16 colonies, which are about all I can handle on a city lot 50x140 feet, and a poultry yard on one side of it. I never cared to keep bees on a large scale, for my work is

such that I can not depend upon a day ahead I could count in Blue Island, a few years ago 600 colonies of bees, and to-day 100 will more than cover them all.

I have only one son, 14 years old. He, my wife, and myself tip the scales at over 600 pounds. So you can see that bees and honey have not stunted us. JOHN H. REDMOND.

The Apiarian Premiums awarded at the late Illinois State Fair, with Mr. C. P. Dadant as judge, are as follows:

Display of comb honey, 500 pounds or more.....	\$20	\$	\$15	\$10
Collection of labeled cases containing 12 pounds or more of white honey.....	5	3	8	
Same of dark honey.....	8	5	3	
Case of white clover comb honey.....	2		4	3
Case of sweet clover comb honey.....	3		2	4
Case of basswood comb honey.....	2		4	3
Case of amber comb honey.....	4	3	2	
Display of samples extracted honey.....	2	3	5	
Display of extracted honey, 500 pounds or more.....	15	20		10
Honey extracting on grounds.....	2	3	5	
Frame of comb honey for extracting.....	2	3	5	
Display of candied honey, 300 pounds or more.....	15	20		10
Display of beeswax.....	10	15	5	
Italian bees (dark).....	3	2	4	
Italian bees (golden).....	3		2	4
Carniolan bees.....	4	2		3
Honey-vinegar.....	4		3	2
Display of designs in honey.....	12	8	15	
Display of designs in beeswax.....	12	20	8	

The first column of premium figures above are the awards of Chas. Becker; the second column, Jas. A. Stone & Son; the third, Aaron Coppin and wife; and the fourth, Geo. M. Rumler.

Apiary of T. F. Bingham.—When sending the photograph of the engraving on the first page, Mr. Bingham wrote as follows:

FRIEND YORK:—I am sending the picture of one corner of the original closed-end-frame apiary with the bees working. My bee-keep-

Honey as a Health-Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

Prices, prepaid—Sample copy for a 2-cent stamp; 50 copies for 70 cents; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.

Our Wood Binder (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Or we will send it with the American Bee Journal a year—both for \$1.10. Address the office of the American Bee Journal.

Amerikanische Bienenzucht, by Hans Buchbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

American Bee Journal

Contributed Articles

Bee-Keepers Making Their Own Hives

BY G. C. GREINER

With the close of the honey season, and the finishing of the necessary fall work—such as uniting weak colonies, feeding up where necessary, and finally the packing for winter—all outdoor work in the apiary ceases. This gives the bee-keeper an acceptable opportunity to improve the cold and stormy days of the coming winter by planning and preparing for next season's work; and as the manufacture of our hives generally forms one of the main features at this time, a few hints in regard to this part of our pursuit may not be out of place.

Ever since the appearance of Mr. Latham's article, on page 74, giving his advice and instructions how to manufacture bee-hives out of cast-away grocery boxes, I have been wondering what portion of all the bee-keeping fraternity agreed with Mr. L.'s ideas, and managed their supply business in the same way. I expected that some one of the older comrades would say something as a reply to that article, but having failed to notice anything of the kind in any of the bee-papers, I will therefore take it upon myself to make a few comments by way of a friendly criticism on the above-mentioned article.

Mr. Latham's literary abilities and sound judgment in general constitute him a terrible foe to fight against, and I would not dare to contradict him, unless I had all the argument and at least nine-tenths of all the bee-keepers on my side. But this being the case, as I believe, I will venture to present the matter in its true light, as seen from different standpoints.

In former years I dabbled a little in the supply business, manufacturing hives and selling on the road in numbers ranging anywhere from 1 to 15 and 20 hives at a time. At other times conditions were such that I found it advisable to purchase hives in the flat from our regular bee-supply establishments. I am thus enabled to draw an unbiased conclusion, based on actual experience and observation.

To the experienced bee-keeper Mr. L.'s advice has little weight; so has mine; but to the beginner, or the contemplating aspirant, who may be led astray by Mr. L.'s questionable advice, I would say: Don't, don't follow his advice, for you will surely come to grief; endless annoyances will be your lot if you do.

It seems Mr. L. does not take the right view of economy, and overlooks uniformity of all our bee-supplies en-

tirely. These are the two main features which the bee-keeper should take into consideration when buying or manufacturing his supplies.

During my lifetime of 60 years or over, I have demolished many, very many, grocery and dry-goods boxes; in fact, I keep some of such material on hand all the time. For some certain purposes—hen-coops and feed-boxes, for instance—it is all right, and can be used to good advantage; but for bee-hives—never! I can not see one favorable point in using such boxes for bee-hives. I may be a little deceived, but I always flattered myself with being endowed by Nature with a somewhat mechanical turn of mind. I always took pride in doing mechanical work in workmanlike manner, but I am not mechanic enough to make something out of nothing, and trying to transform grocery boxes into bee-hives comes the next thing to it.

While writing this, I am looking at a number of chaff-hives in front of my honey-house, near the center of my apiary. They were made by hand many years ago, out of dry-goods boxes. Having been kept well painted, and well made in the beginning, they are now in a prime state of preservation, and the passer-by would, without making a close examination, take them to be regular factory-made goods; but if I had to do that work over again, I would use new, dressed lumber, and have it fitted by machinery. I would make this change, not so much because I would get better hives, but as a matter of economy. It does not pay to spend our time fitting, measuring, sizing, etc., such lumber as these boxes furnish. Taking boxes to pieces, drawing nails and getting the material ready to use, is a long, tedious job, and when we get it, it is of all lengths, breadths, and thicknesses, always wasting more or less in cutting up. To tinker up a very limited number of hives, as Mr. L. outlined, might do for an experiment, but to manufacture them by the 50's or 100's in a profitable way, we should have to employ more systematic and businesslike means. Even if I intended to make only a few hives, I would purchase new lumber for them; the work can be done much quicker and better, and, when it is done, will be more respectable in appearance. The many photographs which have been presented to us lately by the various bee-papers, are sufficient proof that the great majority of bee-keepers consider appearance a desirable feature.

The second point—perfect uniformity of all our bee-fixtures—is of great importance. Every bee-keeper who has had for any length of time large num-

bers of colonies under his care, knows how necessary it is that, for speedy and convenient management, everything in the line of hives and appliances must be of exact uniformity. It is not sufficient that every brood-frame should fit every hive, but every adjustable part that helps to make up the complete hive should be an exact counterpart of every other one of its kind, and this can only be accomplished when every single piece used in the construction of the hive is as nearly like its mate as measurement can make it.

In speaking on this subject, a friend said in one of our bee-papers some time ago: "We must do our work within 1/32 of an inch." This is all right as far as it goes, but it doesn't go far enough; it may answer in some cases, but in many instances we have to come within a hair's breadth, if we expect to have our work give satisfaction.

The fundamental principle in all our hive-making is to adopt a standard thickness of our lumber, and then stick rigidly to it year after year. Our common country planing mills, where mostly building lumber is dressed, do their work seldom, if ever, precise enough for hive-making. To get lumber dressed as ordered, we have to call on some of our bee-supply factories, or some establishment where machinery is required to do close work. In testing the thickness of lumber I am not satisfied to measure one single board. If, for instance, 3/4 inch is required, I take 4 boards, squeeze them tightly together and measure, and if the 4 measure exactly 3 inches, I call them correct thickness. If we then adhere to the various sizes and dimensions otherwise, we can reasonably expect that passable uniformity will be the result.

As an illustration, that uniformity of all our bee-fixtures is not only a notional gratification to the eye, but an actual saving of time, I will give only this one instance:

Suppose we have 2 rows of hives which we wish to examine, one after another, as we frequently do during spring management. Commencing with the first hive of the front row, we take its cover and set it against the off side of the hive. When ready for the second hive, we take its cover and place it on the first hive to take the place of the first cover. The third cover is placed in the same way on the second hive, the fourth cover on the third hive, and so on all along the line, until the last hive is reached. Then we step back to the second row and take its first cover to the last hive in front. This prepares the way for the exchange of covers on the second row, and by the time the last hive is reached, which brings us back to our starting point, we simply let the first cover make up the deficiency on the last hive of the second row. In this way every cover, except the first one, is handled only once, saving not only precious time, but many motions of the operator.

Now, Mr. Latham may say: "Pretty small affair to use as an argument." I admit it is a very small affair when handling one or two hives, but where we have to do the work for hundreds, perhaps thousands of colonies, that

American Bee Journal

"small affair" is multiplied just so many times; and when we have to repeat the same operation two, three or more times, it is multiplied that many times more. And that is not all. There are many other operations during the season, which can be performed to better advantage and in less time on account of uniformity in all our outfits. As said before, in handling one or two hives the difference, one way or the other, may be very small, amounting to seconds only; but the many multiplications make them grow to minutes, the minutes to hours, and who knows, if correct accounts were kept, but what these little savings would amount to days, possibly weeks, during the season?

La Salle, N. Y.

How Many Colonies to Keep

BY H. H. MOE

On page 880, Mr. Doolittle has an interesting article on "How Many Colonies to Become Well-to-Do," and requests Messrs. Miller, Dadant, etc., to reply. Personal experience from some of us "lesser lights" might be of interest. Before I give my personal views, however (it will be purely my personal experience and views, which, of course, may apply to no else), I would like to make clear a few points, important in the consideration of the subject.

To begin with, it would seem plain that if only dollars and cents were in view, bee-keeping would not be an attractive occupation. This would seem plain from Mr. Doolittle's quotations, and conceded in general. Of course, the point is not quite clear as to how many dollars, exactly, are needed to be well-to-do.

A paper by Mr. Hutchinson was read at our State convention two or three years ago. I did not feel that all the advice given by Mr. Hutchinson was financially sound or good. This point is more plainly brought forward in the recent edition of his book, "Advanced Bee Culture," in "What will best mix with bee-keeping?" Mr. Hutchinson's reply is, "More bees." In spite of what Mr. Hutchinson says about the prop, I am obliged to keep the prop for good and sufficient reasons. But I also want to keep my bees. I also further notice that most bee-keepers keep a prop. Mr. Hutchinson is an editor, and used to sell queens. Dadant makes comb foundation and handles supplies. Doolittle is a queen-breeder, from which I understand he derives no small revenue, and is also a most interesting writer.

Why should I throw away the prop, or my bees? True, my movements among bees may be a little slow, as compared with an expert; but it is because I want to see, to study, to observe, and experiment. In other words, I like to live, and I like to live among bees. The quotation Doolittle gives fits my case exactly, and I think the quotation is most beautiful. I like to live among bees, but I must also pay my bills—hence, the need of a prop. From 70 to 100 colonies are all I can handle to advantage. I want time to

listen to their music, and watch them at their work.

It would be hard now for me to do without the honey which necessitate bees. Nor could I do without my bees.

Of course, locality, etc., have much to do with the considerations of this question. I think a man with a family would need \$700 to \$1000 a year to live comfortably, and also to have a little for a rainy day. With bees alone I doubt if a man could be successful in this locality. But this country is a land of "milk and honey." Dairy-ing is decidedly in the lead, when it comes to making money by the farmers. Now, I want to assure bee-keepers that milk goes nicely with honey—particularly plenty of rich cream. Further, I want to remind Mr. Hutchinson that according to the Good Book, the land of milk and honey is the ideal country. (Read the Bible and see if I am not correct.) Then if you still have any doubts, come here and I will prove it to you. If I had depended upon my bees the past season, I believe I should have been decidedly without a prop. Seventy colonies in this locality the past season would not have yielded \$200 at the best, and I don't believe I could live on that.

Nor do I wish to follow Mr. Hutchinson's advice to keep the prop and discard bee-keeping. I have, as a rule, found bee-keepers interesting people, clean and intelligent, and I want as much of both as I can get (together with a living). I know one's occupation influences one. I want the beautiful and wholesome influence of bee-keeping.

But I have not touched upon the most interesting field of Nature-study that bee-keeping is. I have almost come to regard it as necessary to successful bee-keeping. For instance, there has been published a lot of interesting play-things from a not-far-away bee-keeper. It is a "two-queen plan," and the real purpose, as I understand it, is to get strong colonies. The plan is given as a sure road to wealth (?). Well, a year ago the past summer, when the plan first came to my attention, I had the ideal condition so strongly advocated by the "two-queen plan." Every colony crowded with bees and bubbling over. All during July this condition existed, and July ought to be a honey-month. But it was not, and all my bees were consumers, and often not producers. Thus a direct loss, and not a gain. But the study of honey-conditions and the bees were equally most interesting.

Don't for a minute forget that the bees have helped "to clothe my back, put food in my mouth, and given me conveniences to travel with," also comfort and happiness.

Woodford, Wis.

Wintering Bees—Hearing

BY GRANT STANLEY

As wintering bees on summer stands is probably best for the majority of bee-keepers, it is very important that we see that our bees have plenty of well-sealed stores at the approach of winter. There is little danger, indeed,

of their having too much in an ordinary brood-chamber. Bees certainly will not rear brood when there is scarcely sufficient stores in the hive to carry the colony through until such time as they can gather for themselves, and, of course, they have no knowledge of being assisted by their thoughtless owner. More bees die of starvation in wintering than from all other causes combined. Let us remember that in order to have strong, prosperous colonies in spring, it will be necessary to provide the conditions by which this is brought about—in fact, summer conditions must be manifest as near as possible—warmth and food. We know that during the summer months the hives are crowded with bees, for the reason of natural warmth and food, so that if we desire strong colonies in spring we must provide for it the previous fall. More harm than good will result by feeding bees in early spring to stimulate brood-rearing, as by exposing the colony to the drafts of cold air daily will result in chilled brood, pickled brood, and, indeed, many other diseases of which probably we have never dreamed.

PAINTING HIVES.

Bees will winter better in unpainted hives than in those painted. The unpainted hive is more porous, and thus permits the moisture to pass off more readily. I wintered 2 colonies a few years ago in unpainted hives, and there was not a drop of moisture accumulated in those 2 hives throughout the entire winter, and the bees came out in spring in the very pink of condition. I believe this is also the experience of Dr. Miller.

I prefer all hives painted, however, if for nothing more than appearance alone, while the wearing qualities are also a large consideration. I don't know of a more pretty sight than hives painted white, and properly arranged on a well-kept lawn.

DO BEES HEAR?

Considerable mention has been made through the various bee-papers recently as to whether bees hear or not, some very strong theories being advanced in both directions. The editor of *Gleanings in Bee Culture* would have us believe that the various instances reported of bees hearing are not proof, as they may acquire all this by scent. Well, if this is true, they are certainly fine "scenters." If they can not hear, will some one tell us why the piping of the young queen in its cell takes place, as I don't see where the scent factor comes in here, where the young queens are sealed up in the cells. Is this instinct given to the young queens so that the bee-keeper can place his ear to the hive and be able to know when she will come forth, or is it intended for the colony?

Another thing: If you imprison a bee on the comb with your finger in such a way that it will set up that peculiar sort of buzz, several bees will make for the imprisoned bee instantly, and possibly dozens more make for the face of the bee-keeper, while if the bee is imprisoned without the buzz being manifest, no attention is paid to it.

Nisbet, Pa.



Conducted by EMMA M. WILSON, Marengo, Ill.

Moving Bees

Being anything but a nomad, I surprise myself when I recall the experience which has been forced on me in moving bees. Sleds—than which nothing is more handy—all kinds of wagons, from the honey-wagon to the hay-wagon, railroads and steamboats, each and all have been called into requisition, as the case demanded. Now, do not get excited through imaginary visions of some new method of moving about to be brought to light.

I have to offer neither patented plans nor implements on which I hope to reap a royalty. I am so much indebted to the bee-keepers at large, that should I stumble on anything new under the sun, or any particularly bright idea, I should feel obligated to give it freely to the public, knowing full well that I had received my pay with usury long ago.

To lay down a certain system for moving bees is out of the question, as each case has its peculiar variations. These variations, most probably, largely constitute a part of the pleasure to be found in bee-keeping.

Were one possessed of a preferred system, it would be like "casting pearls before swine" to offer it to an average teamster, such as one picks up at random over the country. It's an exception if he does not "know it all!" What does a bee-keeper know, especially a woman, about loading and unloading, and teaming in general, anyhow? He is a past grand-master in the art of handling bees, and it's "big I" and "little U" until some disaster overtakes the expedition, and matters are simply reversed, and the unfortunate apiarist is most suddenly in demand at all points. His stock of wisdom and judgment soars skyward many points, like a flash, in the estimation of ye frightened and frenzied driver.

At this stage of proceedings the apiarist may consider himself exceedingly fortunate, if after a few exasperated—worse than useless because harmful—efforts on the part of the assistant, who is by this time not only humiliated but disgusted in consequence if said helper does not "unhook" and leave without ceremony.

Frequently such a character is not content with the injury which he himself can, and does, inflict, but seems to have a personal revenge to satisfy, and will use his influence to the best of his ability not only to prevent others from aiding you, but to make you trouble in general. Thus, an endless chain of

misfortunes springs from a single mishap.

March 1 brings about many changes; perhaps it's to be in the "big parade" that the changing of locations is usually deferred until spring. (I've sometimes questioned whether the extremely popular habit of putting off until tomorrow had anything to do with classifying this work with that necessarily done in the spring.) Certain it is, at that season, we attack all manner of work with renewed vim, possibly because all things around us are along with the new year, springing into new life, and as results of the coming fray are yet behind the misty veil of the unknown future, they of course are, more especially to the bee-keeper, promising. Oh, but it's so natural to wait for spring and join hands with Nature and promenade all.

Admitted there are good reasons for postponing the moving of bees until spring, prominent among which is the fact of the combs being light from the consumption of the winter stores, and brood-rearing not yet in an advanced stage. But how about the roads? Are they not most frequently bad beyond description? Last spring they out-generated the best of them, and ruled that locomotion (on country roads) be narrowed down to horseback riding, and at the last extreme to "foot-back" business. Largely on this account, and partly because we can expect more pleasant weather, we are trying the experiment of changing locations in the fall of the year.

Where cellar-wintering is practised, the moving of an apiary is not such a formidable task. To begin with, all hands are more in practise and on the alert for all the possible adverse happenings which are liable to present themselves in a more or less forcible manner. Then, too, the implements and all connected with this work are mostly in readiness, and are easily "come-at-able." But where colonies remain on the same stands winter and summer for a stretch of years, and "the spirit moves" for a change—there, and then, you are introduced to the "tug o' war." The number of sprung, or warped and rotten bottom-boards which refuse to bear their own weight is truly surprising, and these furnish such grand opportunities for the legions to pour forth on the defensive!

About this time resolutions in regard to practical and substantial foundations are in order; the same "are born but to die" during the push of the following swarming season. Moving an

apiary is much like a general house-cleaning, a seemingly necessary nuisance, which, viewed from the distance, is a terrible bug-a-boo, but which often turns out to be a good thing all around after all.

Many things over which the apiarist has no control direct, determine or compel a move, chief among which are: *A complete change of character of the territory*; *an over-crowded condition of the same*; *a change of tenants or owners of the land on which the apiary stands*; *unreasonably disagreeable neighbors*; and other minor considerations. (The mention of disagreeable neighbors does not necessarily imply that the bee-keeper is always agreeable. However, it's safe to affirm that the average bee-keeper will put up with many discomforts and make-shift plans rather than to go a-gipsying.)

Because renters are more liable to move than land-owners, one is lucky to secure a location on which the owner of the land himself resides. All else being agreeable, the risk of compulsory move is considerably lessened.

By moving in the fall we can congratulate ourselves on escaping not only the mud, but the wintry, pneumonia-producing blasts of March as well. Mud and snow, on which to move bees, are all right provided the road is level and not cut into ruts and holes, as well as sidling places having been formed by continued soft weather and heavy hauling. Both mud and snow serve as a cushion to break the jolts as does a bed of dust. To be sure, a liberal coat of the latter heightens our appreciation of a bath—in fact, renders a free use of the same unavoidable. But a bath always pays for the trouble in the way of refreshing effects, the returns coming in on the spot accompanied with a good rate of interest. And while we are contending with the dust, we are evading that slipping and sliding and "stick in the mud" experience which always attends teaming in mud and snow. The difference in the weather would decide in favor of fall moving. Bustling March keeps one hustling if he succeeds in keeping fingers and toes from tingling.

What more quieting than our lovely autumn days? Basking in the warm, golden sunshine, enveloped in the hazy, mellow atmosphere, scarcely disturbed by the slightest zephyr, one is sorely tempted to follow Nature's ways as she seems to be dozing or catching the first naps of the long winter's sleep beneath her newly-made coverlet of forest leaves. What more fitting than that these quiet, drowsy days should follow the arduous ones of the more active season? May those of us who may live to a ripe old age, find the autumn of our lives as peaceful and beautiful.

For all this coddling and coaxing to enter into this delightfully dreamless sleep, I am awake to the cost of moving the bees. Cost in time, labor and money, and I might add patience. Many times when things go at a snail's pace, and everything lags but Old Time, and he takes wing and flies, I long to find an electrical button to push, and fire more ginger into the hired-man.

Right here is room for a new inven-

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tion. Doubly trying are matters if the moving has been occasioned by the silly whims of some ignorant and oft-times disinterested person. Whims which, nine times out of ten, are totally without foundation, the mere entertainment of which would be laughable were it not for serious consequences brought about by their existence.

IS OPPOSITION TO BEES DYING OUT?

Thinking of these whims brings to mind a question I have oft-times (of late) thought I would like to ask the bee-keeping friends. Or, rather, I would like to hear some answers to this query: Is bitter, *unreasonable antagonism* toward bees on the wane? I sometimes flatter myself that it is dwindling, or slowly dying out. Fruit-culturists have greatly assisted in ameliorating or softening this feeling. They find bees a necessity to their venture. Lo, these many years, have friendly counsellors to horticulturists preached the advisability of keeping a few bees as aids to their enterprise; however, outsiders had a sneaking notion that the bees were

kept mostly for honey. Just now the tables seem to be turning, and the idea that they are kept mostly for a good setting of fruit appears to be getting its right o' way. This year apples in this locality are very faulty, and I heard the Eastern buyers advising the use of the sprayer next season; and I was more than pleased to hear them caution about its use in time of blossoming. The expression, "You'll kill the bees, and they are your best friends," was quite often used.

Occasionally I am solicited—*solicited, mind you*—to establish an apiary in proximity to some orchardist; and that, too, in neighborhoods where only a few years ago such an undertaking would have been treated with disdain, and had the people the power, they perhaps would have used me and my apiary for a foot-ball.

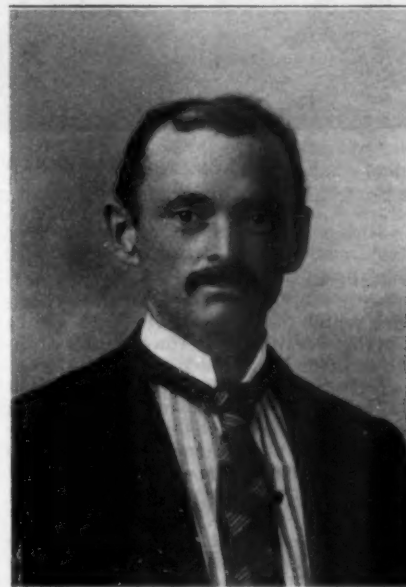
What wonder I am anxious to learn if things are coming my way, generally speaking; or, is the change only in my individual imagination?

(MRS.) MARY E. NULL.

Miami, Mo.

to embark in bee-keeping as a business next season.

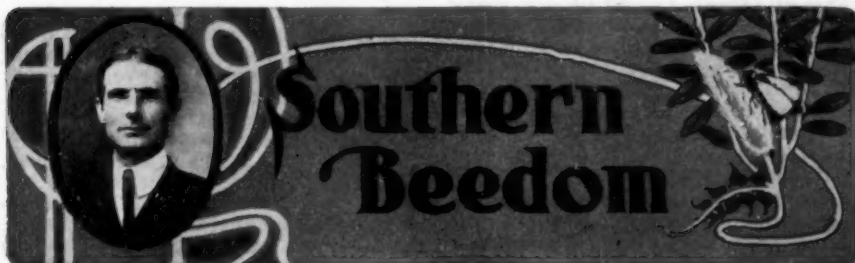
This season's honey crop has been an eye-opener, and well published throughout the Southeast. Bee-keeping is considered by all



J. J. WILDER.

as an industry of great possibilities here. The demand for bees, queens and supplies are the heaviest we have ever known for this season of the year, and the demand for bees can hardly be filled.

J. J. WILDER.



Conducted by LOUIS H. SCHOLL, New Braunsfels, Tex.

Mr. Chambers and His Helpers

Mr. Chambers has this to say further regarding his "helpers" shown in the picture on page 934:

In the group the oldest is Edward Lafayette, named after the great Frenchman, is 14 years old, and I would rather have him in the apiary than a great many so-called experts. He is a ready hand at anything, and is also fairly expert at queen-rearing, using my own system, the cell-starting hive and device. He is thoroughly familiar with the shallow hive, which is used exclusively in our yards, and he and I, without any other help, manipulate 400 colonies. We took off and extracted 17,000 pounds of honey the past season, and all with a 2-frame extractor. We also reared and sold 500 queens, driving 7 miles to the post-office every other day.

The next boy on my right is John, 9 years old, but small for his age, and is rather "contrary" at times, but interested in bees. He helps much around the bee-yards, doing nearly everything that a boy of his age could be expected to do.

Jesse is the least, and is 6 years old. He is a useful and efficient helper, doing the small chores.

None of the boys are afraid of bees, and I confidently expect all three to turn out bee-keepers.

J. E. CHAMBERS.

Bee-Keeping in Georgia

We notice that bee-keeping receives quite prominent notice in an advertising pamphlet recently gotten up by

the Georgia Southern and Florida Railway, setting forth the prosperity of South Georgia. J. J. Wilder seems to be the most extensive of Georgia bee-keepers from the following:

Bee-culture is followed with large profit. Mr. J. J. Wilder has near that town several hundred colonies of bees from which he gathers honey to the value of \$1500 to \$2000 a year. The writer visited these colonies, and was much interested in the healthy, busy little bees that produce so delicious a product. Mr. William Clements has also 30 colonies, producing 2000 pounds a year.

Mr. Wilder is president of the Southern Bee-Keepers' Association of that State, and writes the following regarding their annual meeting, together with other notes on Georgia's bee-keeping industry:

The Southern bee-keepers were to meet in Atlanta, Ga., Oct. 11 and 12, but on account of a race riot there a few days previous to the meeting, it was called off, and I do not know whether we will try to have another meeting this season or not. There was much interest manifested among the bee-keepers concerning this meeting. Many were to be present, and many letters were sent in to be read. So we feel somewhat disappointed, as a profitable meeting was anticipated by all.

We are having a boom in bee-keeping here now. Several large bee-deals have been made. Mr. Alderman, of Florida, has bought Mr. Heard's apiaries, located near Macon, Ga. Messrs. Sullivan & Roach, near Savannah, Ga., have bought a lot and will locate near Daisy, Ga. Others are making arrangements

CONVENTION NOTICES.

Chicago-Northwestern.—The Executive Committee of the Chicago-Northwestern Bee-Keepers' Association take great pleasure in making the following announcement:

Through the kindness of friends it is possible to hold the next convention of our Association in the fine hall known as "Brunt Hall," in the Bush Temple of Music, corner of Chicago Avenue and Clark Street, Chicago. This is the same hall where the National Association met last December. Arrangements have been made with the restaurant in the basement to serve good meals at very reasonable rates. The Revere House will lodge bee-keepers at their usual low rates. This hotel is at the corner of North Clark and Michigan Streets.

Dr. C. C. Miller writes: "I don't know how much I can do toward making or marring the convention, but, Providence permitting, I'll be there."

N. E. France says: "So far as I know now, I can come."

C. P. Dadant writes: "I promise to attend your convention if possible."

Let us have a full attendance of all the bee-people (ladies and gentlemen) within reach of Chicago. Come and see the great International Live Stock Exposition, and spend part of your time at the bee-keepers' convention.

The meetings will be as follows: Wednesday, Dec. 5, 10 a.m. to 12 m.; 2 p.m. to 5:30 p.m.; and 7 p.m. to 9:30 p.m. Thursday, Dec. 6, 9 a.m. to 12 m.; and 2 p.m. to 4 p.m.

QUESTION-BOX ALL THE TIME.

Everybody come and make this the biggest and best bee-keepers' convention ever held in Chicago. Reduced rates on all the railroads.

GEORGE W. YORK, Pres.

MRS. N. L. STOW, Vice-Pres.

HERMAN F. MOORE, Sec.

Executive Committee.



Conducted by MORLEY PETTIT, Villa Nova, Ont.

Moving to Buckwheat

Mr. J. L. Byer, in the Canadian Bee Journal, has the same experience as myself in the matter of moving weak colonies to buckwheat. This year I moved only the strongest, and considered that by leaving weaker colonies at home I was just saving moving expenses. He says:

Although I have had but little experience in moving bees to buckwheat, one thing I have learned to my own satisfaction, that it doesn't pay to move any but very strong colonies. For some reason or other the difference in results between strong and weak colonies is much more apparent than during the clover flow. A year ago I moved a load 10 miles away. Half of the number were very strong colonies, the other half fair nuclei. I moved in the hope that they might fill up for winter. While the strong colonies stored considerable surplus (the flow was very light), the nuclei were little better when brought home than when they were moved away.

Don't Let the Bees "Slide"

Don't forget that there is a winter coming.

Don't forget that it will soon be here.

Don't forget that bees can not live through the winter on beeswax and air.

Don't forget to see that they have something more substantial.

Don't forget to do it until December.

Don't forget that the sooner you do it the better it can be done.

Don't think that because you have only a few colonies of bees they do not need attention.

Don't think that, if they do need it, any old time before Christmas will do to fix them up.

Don't think that you haven't time just now.

Don't think that you can't leave the plowing or the roots for a few hours.

Don't think that the bees have plenty of honey for winter unless you know they have—unless you have seen it, or given it to them, or felt the weight of it.

Don't guess at it. Don't take chances.

Live bees are worth money; dead bees are not. Remember that bees are living animals, and if they haven't enough of the proper food to keep them alive they will die. The fact that you can give them their winter's supply of food all at once (if they haven't already got it for themselves) is no excuse for not giving it to them at the proper

time. Look them up. If they haven't a laying queen and enough honey for winter, see that they are "put right." The sooner the better. Do it now.—E. G. H., in Farmer's Advocate.

Super Foundation

E. E., in the Journal of Horticulture, England, works out the time to use, and not to use, foundation for comb-building, very nicely. Incidentally he introduces something with reference to judging, not much practised in this country; that is, cutting the section of honey to find the nature of the midrib. It is also a strange idea to desire fragile comb for extracting purposes. In this country we even brace the foundation with wires to make it strong for the extractor. The bulk of his article follows:

Prior to the main flow, when there is only a small income, full sheets of foundation will be worked out as thin as natural comb; in

fact, the difference is so slight that it can hardly be detected.

When, however, there is a glut of honey, and also late in the season when the temperature is falling, the combs will show an objectionable herring bone in the center. In the former case, it would appear that the bees being gorged with honey, and secreting wax abundantly, neither have the time nor the desire to utilize the wax given to them, their greatest endeavor being to draw out the comb and gather and store all the honey possible. In the latter case, the reduction in temperature hardens the wax, and it is consequently less plastic and more difficult to work.

Combs worked out by bees prior to the main flow will be found nearest to natural comb, because with a small income they produce little wax, and have to make the best of the foundation which is given them, the thickened cell walls being drawn out thoroughly, and no thickenings.

In judging comb honey in either sections or frames, the judges, as a rule, make a point of finding whether this herring bone is present or not. By holding the combs to a strong light it will show whether it is wrong, and when this is found to be the case, a skewer or knife will confirm the suspicion, and its merits are discounted accordingly. In addition to avoiding the objectionable midrib when for exhibition, there is an economy in using only strips of 1 inch to 1½ inches of foundation in shallow frames for extracting purposes, and these may be obtained early in the season by inducing the bees to build out the foundation and removing the frames as completed. This is best done when few bees are at home in the middle of the day, and freshly fitted strips in more bars given to them in readiness for another day's work.

Sections should be filled with nothing less than full sheets of foundation of the thinnest, as unless this is done the bees will build irregular cells, or what are called transition cells, passing from these to all drone-based cells for the remainder of the section, and the different sizes of cells and irregularities do not enhance their appearance.



Send Questions either to the office of the American Bee Journal, or to
DR. C. C. MILLER, Marengo, Ill.
Dr. Miller does not answer Questions by mail.

Wire-Nail Frame-Spacers—Plain or Slat Separators—T-Tins

The metal spacers that you use in the brood-frames you say are nothing more nor less than a common wire nail. That seems to be just the thing when working for section honey.

1. Don't the nails that are near the bottom end of the frame ever come out of place when the frame is taken out and replaced again?

2. In speaking about these frames on pages 847 and 848, you say that after using thousands of these spacers for a number of years you are more pleased with them than ever, but that if you had it to do over again you would try very hard to get the automatic nails. Can you tell me where I can get them?

3. What kind of separators do you like best, plain or slat?

4. How long are the T-tins used in an 8-

frame super? Would it be wise to order them ⅛ of an inch shorter than the width of the super?
WISCONSIN.

ANSWERS.—1. There isn't much chance for such interference. When you put in a frame there is always more than half an inch play, or extra room, and then when all the frames are in, the dummy is put in to fill up that vacant space. Without the dummy there would be trouble enough.

2. I don't know of any place where you can get them. They are on price-lists in Germany, and I suppose if there were call enough they might be had in this country. Nail-makers will not make a special nail unless 100 pounds or so are wanted at a time, and no one but a supply dealer would want so many. You can do fairly well with a heavy galvanized shingle-nail.

3. I prefer the plain wood separator.

4. Yes, to work well the T-tin must be ⅛

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inch shorter than width of the super. The inside of an 8-frame T-super is 12½ inches wide, and the T-tin just 12 inches long.

Transferring and Italianizing

I want to transfer my bees from their box-hives to hives with movable frames and give them Italian queens. Can this be done at the same time or will I have to wait a while?

INDIAN TERRITORY.

ANSWER.—Probably queens are not very often introduced at the same time a colony is transferred; yet it will be all right for you to perform the two operations at the same time if you so choose. On one account you will find it more convenient to do the introducing after the colony has had time to fix things up in its new home; it is that you must find and remove the old queen either before or at the time of introduction, or a day or two later. It will not be an easy thing to find the queen during the turmoil of transferring, and it is not best to handle the frames to look for her until the bees have had abundant time to fasten the combs thoroughly in the frames.

Late Stores for Winter—Mismatched Queen—Perhaps Common Bees

1. I am having a peculiar experience with 2 colonies which gathered considerable late honey, and each had a full-sized second story in which there was considerable honey. About a month ago, fearing they had not enough winter stores in the brood-chamber, and wishing to give them a chance to seal up for winter, I put super covers with a hole of a size to receive a Porter escape under the top stories. They failed to do it, and a few days ago I bruised up all the cappings, and started the honey to running at a great rate. They have taken down part, but one colony now is repairing the combs and recapping part of it. I do not wish to break the seals, and shall leave them, taking it for granted they have sufficient stores below. I intend to winter them on the summer stands with Danzenbaker super-covers, packed with carpet and paper.

2. Possibly you remember the question you answered for me some weeks ago, in regard to a mismatched yellow queen producing bees of all shades or markings. I thank you for the answer, which I accept as correct—that this is the usual thing, with bees—but when you apply it to other things I am not convinced, for I never yet saw a child that looked exactly like either parent; or, which I think the better illustration, the product of a first cross of the white and black races that was not easily distinguished from either pure white or pure black.

3. All the latter part of the summer and fall, and even yesterday, some strange bees were hanging around my hives attempting to rob. I have seen my bees carry out and away several, and I am sure they have met with poor success, yet they persist with a constancy worthy a better cause. They are medium sized, glossy—almost pure black—rather pointed abdomens. Could you give me any idea what race they are? I have not been able to find where they belong. I am sure it was by one of these drones that my crossed queen was fertilized, about which I inquired.

I have recently finished my first reading of your "Forty Years Among the Bees," and I feel that I want to hand you a unanimous personal vote of thanks for giving us so interesting and helpful a book. Back in the days when I was a boy, and A. I. Root was writing the first edition of "A B C of Bee Culture," I tried bee-keeping, but was not very successful, and circumstances compelled me to give it up. Now I am practically a beginner with 3 colonies, in the suburbs of a city. What I will have in the spring remains to be seen, but I shall put some of your ideas to the test.

KENTUCKY.

ANSWERS.—1. It will not do to take it for

granted too confidently that bees have enough in the lower story when there is a lot of honey in the upper story. I got fooled that way myself this very fall. The bees filled several frames in the upper story, and some frames below were empty. But your bees, as far south as Kentucky, ought to have chances enough in the way of warm days to carry down the honey as fast as needed.

2. I own up—you've got me on the mulatto question. But I'm orthodox as to colors of bees. Guess I better stick to bees, and not talk about other things.

3. Very likely those robbers are common stock with the plumage worn off, making them look smaller, shiny, and pointed.

Thanks for kind words about "Forty Years."



Results of the Past Season

I had 6 colonies of bees last spring. One was broken down last summer, but I didn't notice it until about April 6, when all combs were lying down on the bottom-bars, and only a handful of bees left. But they had a good queen, so I got new frames and fixed up the combs in them. It is as good a colony now as I have, but it stored no surplus. I had 10 swarms from 2 colonies, and 6 from 2 others, one colony swarming only once. I doubled up 3 and 4 swarms. I got 4 stray first swarms in the timber. I have now 23 colonies in all in good condition, and with plenty of stores for winter. I sold \$37 worth of comb honey. We had a good honey-flow from the beginning of June until after bass-wood; then a dry spell which dried out white clover. There was nothing to yield honey after that until September. There are many bees here that are starved already, and more of them will die before spring.

La Motte, Iowa, Oct. 17. NICK JENTGEN.

Bees Carrying Water at Night

"Ohio" wants to know what Dr. Miller thinks about that night-shift of bees carrying water (see page 846). The past 2 years, in April or May, during a hot spell, I moved my bed outside the house, and there I slept every night (weather permitting, of course), till it got too cool (October or November). I didn't use even a tent or mosquito-bar. The first night when I moved my outfit outside I could not sleep, as fleas and long-tongued mosquitoes bothered me no little. I did not sleep that night until 3 a.m. by the watch. I went to the bee-hives and stood there, got a torch-light, and watched the bees in front of their hives; not one minute, not 5 minutes, but fully 15 minutes, going to the next hive and watching again. Soon after 3 a.m. I went to sleep and the bees were still going at this time, just as described.

As reported before, never more than one bee goes out of one hive at once after water, and the next one takes wing the very second one carrier sets her foot on the alighting-board, no matter if a quart of bees is hanging over each entrance, and 2 or 3 empty supers on top. My hives stay in the shade from about 9 a.m. till 3 p.m., during summer, and are raised about 18 inches from the ground. The orchard, and in front of the house, is cultivated with horse as close as can be done. Like Mr. Doolittle, I plow either at the first sign of daylight, sometimes during or right after a shower, or during a honey-flow—at any time while bees are flying thickest. The horse so far has escaped with 4 or 5 stings during the last 3 years, when the bees were shifted from another place into the orchard.

By the way, I have seen or heard of these water-carrying bees many times. As I sleep outside, I know that every hot night, water-

carrying is going right on exactly as reported, except on cloudy nights. If I had bees a good distance from the house—water far for the bees to get—and were it not that I, like a good many others, prefer to sleep outdoors, I would not know of this night-working shift of bees. The well is 70 feet deep, is 210 yards away to the east of the house. No bees go there at night but plenty of them at day time.

The scattered condition of my apiary also might have some influence, where bees under certain conditions go after water at night. Another thing, bees must be carried early in spring to go to a nearby watering-place, so as to know exactly the water-spot. Or, to be exact, don't put a vessel filled with water one day and expect bees to go after water the following night. It may take 2 or 3 generations before results like mine could be attained.

Force of habit, you see.

Last spring was favorable for bees here. During June, July, and the first half of August, nearly every day we had hard rains, mostly about 12 M. Drones, although plentiful in hives, flew very little on account of cold waves following rains. An unusually large percent of virgin queens was lost.

Fort White, Fla., Oct. 9. J. PAWLETTA.

Wintering Bees, Etc.

I have just taken off the top stories of my 10-frame dovetailed hives from 25 colonies. It will not be a big crop this year—about 1800 pounds in all. There were 3 stories with 2 10-frame supers on each, and the second supers will be taken off in a couple of weeks. This is the way I do when I take the last super off: I examine the brood-nest and take out 2 or 3 frames that have the least honey, but full of pollen, and put in frames full of honey sealed over, so that all colonies have at least 30 pounds of honey. The frames taken out are stored for feeding in the spring, if needed. If not, they are used for starting new colonies or giving an accidental swarm; but my 25 to 30 colonies have given me only 9 natural swarms in 3 years, or just 3 swarms a year. Then after the frames are fixed, I put the winter-cases on, and they are wintered right on the summer stands. I intend to increase to 50 colonies next year.

Well, I think Dr. Miller was right in his answer that some swarms had entered the hive. The Alley queen is all right. The hybrids or blacks are all gone. This is the first time that I have seen queens fill the frames with brood clear to the top-bar as those Adel bees did this spring. The spring was fine to May 14 or 15, then it rained to the first of July—full 6 weeks and in the best bloom. Too bad! Well, we shall have to stand it.

I see the Baron M. is lieawful yet. Hope he will bring Yon Yonson along. It is so long since we heard from him, and it would be fine to hear if the catnip and raspberry have increased. And I think Miss Emma Wilson will have to take this Mr. D. in hand for his slur on the ladies' vanity. Just think, even a queen-bee has to have a looking-glass! I can hardly believe it; and, besides, would not all the rest of the bees, before they go out, have to see if their "hat" was set right? This would take up too much time, and I don't see how they can roll in the honey that way. Better have the sides of the hives all mirrors, for accommodation. O. K. RICH.

Wahkiakum Co., Wash., Oct. 10.

"Where Ignorance is Bliss," Etc

After making a thorough canvass of this section and looking over about 30 apiaries, I find that most of the bee-keeping is done on the most antiquated plan. There is not much management put into the business by the old-timer of the back-number type. If you ask them if they ever read a bee-book, they say "No," and will tell you that "there is nothing in it, so what is the use to read a book on bees, or a paper, either!" Besides, bees have stings, and if they were to try to handle them they might do them irreparable injury, so they go on with their box-hives and log gums as of old, never reading a bee-paper or

American Bee Journal

book. Is there any wonder that they do not make anything out of their bees? What other business could anybody make anything out of if he paid no more attention to it, than do most farmer bee-keepers? Could our merchants succeed in a wholesale or retail business, if it were allowed to run itself; or will corn come up, grow, and make a great crop without attention of any kind? Not much; but the bees in their box-hives do better besides swarming or increasing themselves; sometimes give a nice surplus, and that with practically no attention at all by these back-number bee-keepers. Here is a little experience that came under my observation:

The last week in June and the first week in July, I moved 80 colonies about 5 miles from home. Some were weak nuclei and some were fair colonies. There were two bee-keepers that were close neighbors to my bees. One had 16 colonies, the other had 67 colonies, in pretty fair condition. Then came, as most bee-keepers know, a great dearth of honey. I fed my bees every night after dark to prevent robbing, up to Aug. 7, as fast as needed. I supplied them with full sheets of foundation to give them plenty of room for brood-rearing. The result was that when the honey-flow opened, I had these colonies all in fine shape, and the nuclei were also mostly colonies of fair size by this time. I put on extracting-frames as soon as the flow opened. I have taken off 1431 pounds of honey up to the present, and there are still 250 to 300 pounds to take off; besides, almost all have enough in the brood-chamber to winter on and for brood-rearing in the spring. Of course, it took 300 pounds of sugar to do it.

Now, about my neighbor bee-keepers: The one with 16 colonies got 93 pounds. One day when I was going down to my bees, he met me and asked if I got much honey this season from my bees. I told him they did only fairly well. He replied that his bees had done about as well as they usually do, and that he got 93 pounds of honey from the 16 colonies, and thought that was doing fine! As I had put the escape under one of my best colonies the night before—that is, a 10-frame Hoffman super—I asked him to go along and see what one of my colonies had done. I lifted up the super, took it a little way from the hive and asked him to lift it. He did so, and you should have seen him. He was the most astonished man I ever saw. Well, this super contained almost as much honey as he got from 16 colonies. He began to get inquisitive, and soon wanted to know how it was that I got so much honey from one colony. I told him that I read all the bee-books that I could find, and besides I take 2 good bee-papers. I also handed him a sample copy of the American Bee Journal, with which I am always armed, and told him to read it, and that I would be around in a few days. Well, when I came around and asked him about the paper and how he liked it, he said that it was all right, but that a dollar a year was too much for a paper that came once a week, and as there was nothing in bees any way, he thought he could not afford to spare a dollar for a year's subscription; but if I had any more sample copies to give away, he would read them. Well, I thought I would let him subscribe first.

The other one with his 67 colonies got 437 pounds of honey and thought he had done fine, but when he saw what my bees had done, he was astonished. I handed him a sample copy of the "Old Reliable" and asked him to read it, and said that I would be around in a day or two to get his subscription. This copy contained a report of the 36th annual convention of the National, at Chicago. The paper that Dr. E. F. Phillips read there on "Experimental Apiculture" is alone worth the price of 10 years' subscription to the American Bee Journal, and besides benefiting the bee-industry, it also is beneficial to the farmer and stock-raiser alike, whether he is breeding for the betterment of cattle, hogs or chickens; whether he is trying to improve his corn, potatoes, or orchard output; or whether he is trying to improve on all of them, it is valuable. When I went back to see bee-keeper No. 2, I asked him how he

liked the "Old Reliable." His answer was that he had forgotten years ago what the paper contained! Just think of it, dear reader, here is a man that never saw a bee book or journal, and he says that he has forgotten more than their able writers ever learned! Just think of it, he knows more than Dadant, Dr. Miller, Dr. Phillips, A. I. Root, Mr. Holtermann, Mr. Scholl, or Mr. Pettit! He certainly is a wise one. Say, let's make him president of the bee-keepers' association. He certainly is too wise to be doing almost nothing.

As for me, I find it impossible to do without the "Old Reliable," and the advice of able bee-keepers that it contains.

JULIUS HAPPEL.

Evansville, Ind., Nov. 9.

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—We have secured a somewhat comic Souvenir Postal Card for bee-keepers, printed in 4 colors—red, yellow, blue and black. At the left end the following are pictured: An old-fashioned straw bee-hive with bees circling around and above it; a sad-eyed bear with his "hands" over his sweet-loving heart; a jar and a section of honey; also a spoon with a card attached, reading, "Come let us spoon awhile." At the bottom of the card, and to the right, are these words: "Eat thou honey because it is good."—Prov. 24:13. At the left of the bear's head, and encircled with bees, is this sentence: "I can not BEAR to lose you;" and at the top, and to the right of the bear's head and bees, is this stanza:

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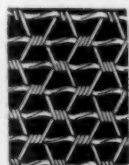


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